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(71) Applicant (for all designated States except US):  
POSTECH FOUNDATION [KR/KR]; San 31, Hy-  
oja-dong, Nam-gu, Kyung-sangbuk-do, Pohang-city  
790-784 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LEE, Jae-Sung  
[KR/KR]; Pohang University of Science and Technol-  
ogy, San 31, Hyoja-dong, Nam-gu, Kyung-sangbuk-do,  
Pohang-city 790-330 (KR). LEE, Kyung-Hee [KR/KR];  
Pohang University of Science and Technology, San 31,  
Hyoja-dong, Nam-gu, Kyung-sangbuk-do, Pohang-city  
790-330 (KR). KIM, Hae-Jin [KR/KR]; Pohang uni-  
versity of Science and Technology, San 31, Hyoja-dong,

Nam-gu, Kyung-sangbuk-do, Pohang-city 790-330 (KR).  
LEE, Hyun-Chul [KR/KR]; Pohang University of Sci-  
ence and Technology, San 31, Hyoja-dong, Nam-gu,  
Kyung-sangbuk-do, Pohang-city 790-330 (KR). CHOO,  
Dae-Hyun [KR/KR]; Pohang University of Science and  
Technology, San 31, Hyoja-dong, Nam-gu, Kyung-sang-  
buk-do, Pohang-city 790-330 (KR).

(74) Agent: LEE, Young-Pil; The Cheonghwa Bldg., 1571-18  
Seocho-dong, Seocho-gu, Seoul 137-874 (KR).

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[Continued on next page]

(54) Title: METHOD FOR MANUFACTURING MESOPOROUS ALUMINA MOLECULAR SIEVE AND ALUMINA NAN-  
OTUBE AND USE OF THE ALUMINA NANOTUBE FOR STORAGE OF H<sub>2</sub>



(57) Abstract: A mesoporous alumina  
molecular sieve and a method of  
manufacturing a mesoporous alumina  
molecular sieve are provided. The  
mesoporous alumina molecular sieve  
of the invention is produced without  
using traditionally used additives.  
Also, because the size and distribution  
of the pores can be controlled, the  
molecular sieve can be produced  
simply and economically, producing  
molecular sieve with high surface area  
and thermal stability. Further, a method  
of manufacturing an alumina nanotube  
by using a surfactant and a use of  
the alumina nanotube as a hydrogen  
storage material are provided.

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